

1           1.       A system for dispensing a metered volume of heated water from the storage tank  
2 to the brew chamber of a single serve beverage brewer, said system comprising:

3                   a metering chamber;

4                   a supply conduit connecting the storage tank to said metering  
5 chamber;

6                   a delivery conduit connecting said metering chamber to the brew  
7 chamber; and

8                   air-activated means for withdrawing heated water from said  
9 storage tank into said metering chamber via said supply

10 conduit, and for expelling heated water from said metering

11 chamber via said delivery conduit to said brew chamber.

1           2.       The system of claim 1 wherein said air-activated means comprises an air pump  
2 having suction and discharge conduits; and valve means operative in one mode for connecting  
3 said suction and discharge conduits respectively to said metering cup and to atmosphere to draw  
4 heated water from the storage tank via said supply conduit into said metering chamber while  
5 preventing water flow through said delivery conduit, and operative in an alternative mode for  
6 connecting said suction and discharge conduits respectively to atmosphere and to said metering  
7 chamber to expel heated water via said delivery conduit to said brew chamber while preventing  
8 water flow through said supply conduit.

1           3.       The system of claim 2 wherein said valve means includes first and second valves  
2 located respectively in said supply and delivery conduits, a third valve for alternately connecting

- 3 said suction conduit to atmosphere and to said metering chamber, and a fourth valve for  
4 alternately connecting said discharge conduit to atmosphere and to said metering chamber.

- 1 4. The system of claim 3 wherein said third and fourth valves are connected to a  
2 common conduit leading to said metering chamber.

- 1 5. The system of claim 4 further comprising barrier means in said common conduit  
2 for safeguarding said air pump against ingestion of water and water vapor from said metering  
3 chamber.